

## WHAT IS CLAIMED IS:

- 546 A.1
1. A process for coating a detergent particle characterized by the steps of coating a detergent granule having at least one detergent active material in a fluidized bed with a water-soluble coating material to form coated detergent granules wherein said fluidized bed is operated at a flux number FN of at least 3.5.
  2. A process for producing a detergent composition characterized by:
    - a) mixing detergent granules selected from the group consisting of wet agglomerates, dry agglomerates, spray-dried granules, detergent adjunct ingredients and mixtures thereof in a moderate speed mixer to form a mixed agglomerate; and passing said mixed agglomerate to a fluid bed coating and coating said mixed agglomerate with a water-soluble coating material to form coated detergent granules wherein said fluidized bed is operated at a flux number FN of at least 3.5.
  3. The process as claimed in any of Claims 1-2, wherein said fluidized bed is operated at a flux number FN of from 3.5 to 7.0.
  4. The process as claimed in any of Claims 1-3 wherein said fluidized bed is operated at a Stokes number of greater than one.
  5. The process as claimed in any of Claims 1-4, wherein said water soluble coating material is selected from deterative surfactants, hydrotropes, inorganic salts, organic salts, and mixtures thereof.
  6. The process as claimed in any of Claims 1-5 wherein said coating material is a non-hydrating inorganic material selected from the group consisting of alkali metal carbonate salts, alkali metal sulfate salts and mixtures thereof.
  7. The process as claimed in any of Claims 1-6 wherein said water soluble, non-hydrating inorganic material is the double salt  $\text{Na}_2\text{SO}_4:\text{Na}_2\text{CO}_3$  in a weight ratio of  $\text{Na}_2\text{SO}_4$  to  $\text{Na}_2\text{CO}_3$  of from 80:20 to 20:80.

8. The process as claimed in any of Claims 1-7 wherein said coating material is wherein said water soluble coating material comprises an anionic surfactant or precursor thereof.
9. The process as claimed in any of Claims 1-8, wherein said water soluble coating material comprises a hydrotrope selected from the group consisting of polyethylene glycols, polypropylene glycols, sulfonate salts and mixtures thereof.
10. The process as claimed in any of Claims 1-8 wherein said water soluble coating material is a mixture of an anionic surfactant and a hydrotrope in a ratio of anionic surfactant to hydrotrope of from 95:5 to 5:95.
11. The process as claimed in any of Claims 1-10 wherein said coating material further includes a detergent adjunct ingredients such as brighteners, chelants, nonionic surfactants, co-builders and mixtures thereof.
12. A process for coating a detergent particle characterized by the steps of coating a detergent granule having at least one detergent active material in a fluidized bed with a water-soluble coating material to form coated detergent granules wherein said fluidized bed is operated at a Stokes number greater than 1.0.